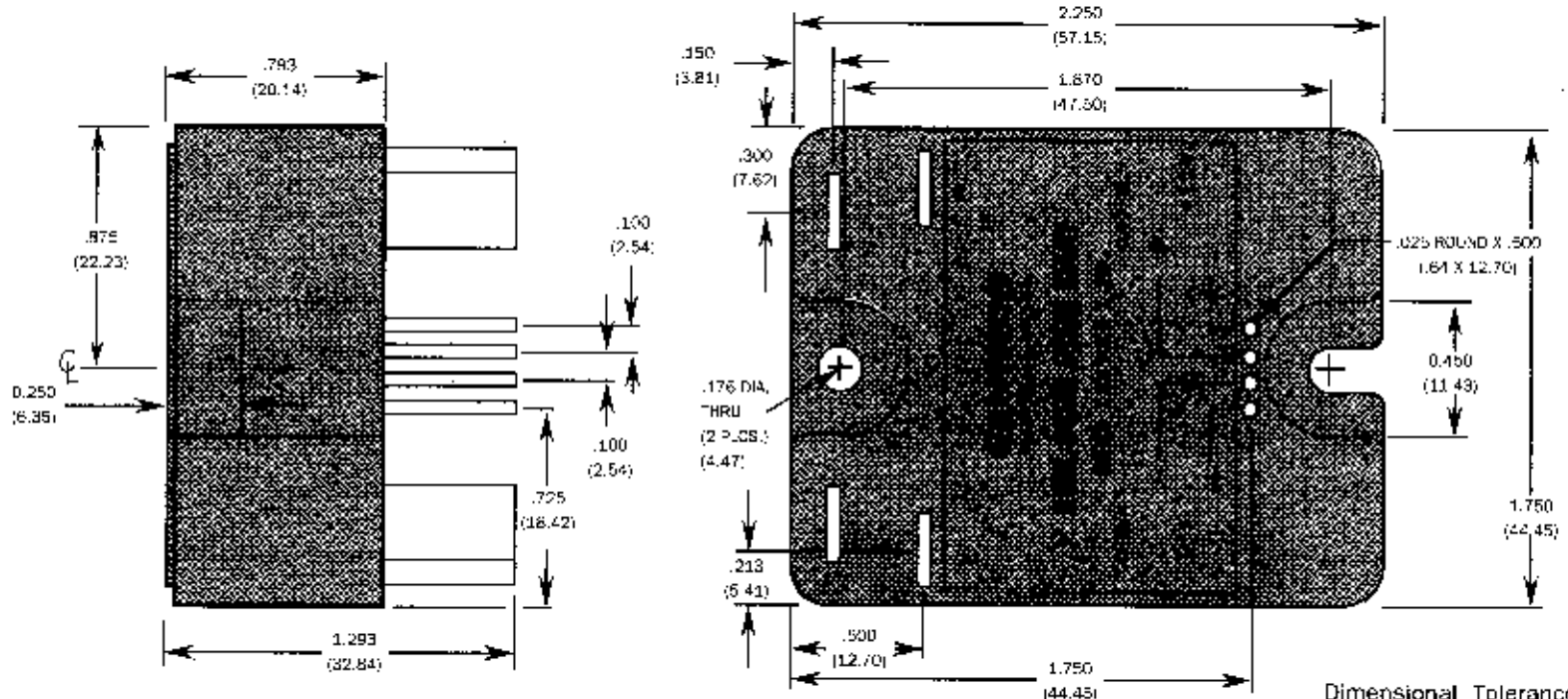
DIMENSIONAL DRAWING



*Amp Connectors for Gates Base Plug: AMP# 640440-4 or AMP MTA 100-4.

Dimensional Tolerances= +/- 0.005"
Case Thermal Measure Location Center of Ceramic

Features

- Back to back SCR output for high dV/dt capability.
- Choice of zero and non-zero crossing units.
- Exposed ceramic baseplate for reduced thermal resistance and lower operating temperature.
- Low electrical resistance due to uninterrupted runs between the power terminals and the SCR's via a copper leadframe.
- Quick disconnect type power terminals in a high temperature plastic housing for mechanical ruggedness.
- Integrated drive circuitry.
- UL & CSA recognized.
- Designed to comply with V.D.E. requirements.

General Description

Gentron's AC Dual Solid State Relays are designed to save space while controlling large amounts of power with a low level DC Logic In-put Signal. They incorporate a dual SCR design to provide full wave capability with high dV/dt capability. Zero Crossing Drive Circuitry switches on minimizing the effects of inductive loads. Non-Zero Crossing Drive Circuitry allows for phase control capability as well as on/off control. The opto-coupler provides the interface to the logic level DC input signal and electrical input/output isolation. Superior performance, quality & reliability are insured by the use of Gentron's POWERTHERM® process. To help ensure the maximum of transient protection an internal MOV (Metal Oxide Varistor) and a resistor-capacitor network is included in each device.

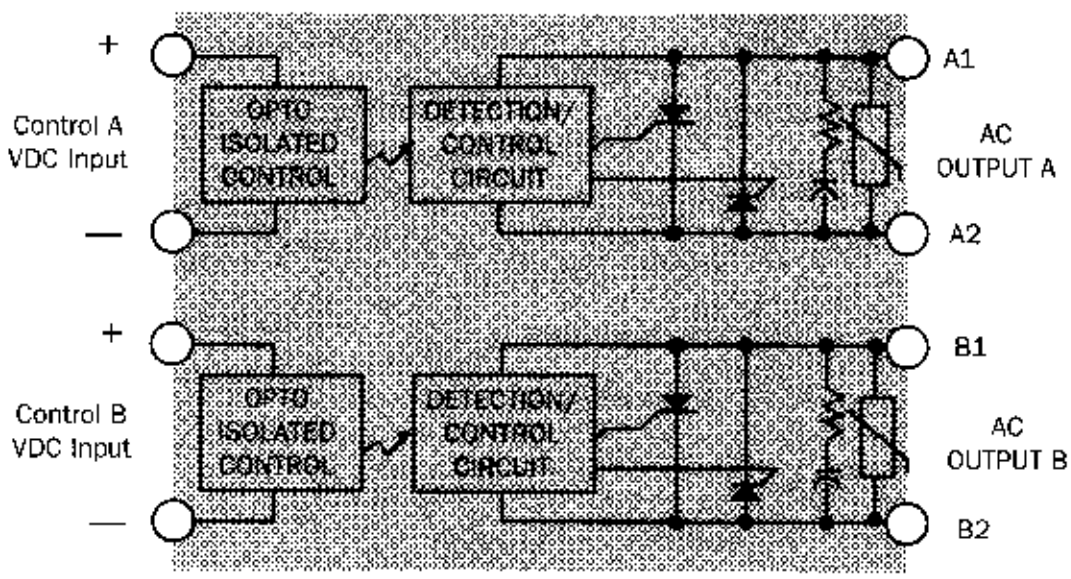
Typical Applications

- On/Off and phase control of high power AC equipment.
- Interfacing of microprocessor controls to AC loads - lights, motors, heaters, valves, solenoids, etc.
- Electro-mechanical line contactor replacement.
- Industrial and process controls.
- Programmable controller interface.
- Robotic motor position and speed controls.
- Light dimmers.
- Transformer tap switch.

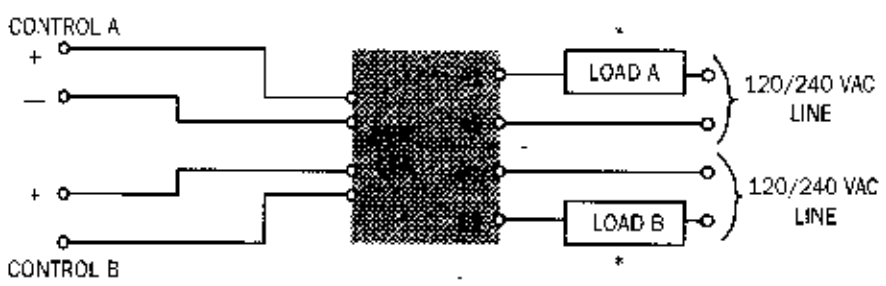
Option

- Proportional control
- Current limit
- Current sense
- Breakers see pg 132

ELECTRICAL SCHEMATIC



TYPICAL HOOKUP



* Load can be placed in series with either termina! A1 or A2, B1 or B2.

See Page 69 & 70 For Graphs

TYPE	DC INPUT ZERO CROSS SWITCHING	DC INPUT NON–ZERO CROSS SWITCHING
NOMINAL LINE VOLTAGE – VAC	240	
MODEL NUMBER	SSRD 600 240 D40	SSRD 600 240 R40

INPUT SPECIFICATIONS

MAX. INPUT CURRENT	15 mA @ 5VDC	
MAX. INPUT VOLTAGE – VDC	32	26
MIN. INPUT VOLTAGE – VDC	4	4
MIN. TURN-OFF CURRENT – mA DC	0.25	
MIN. TURN-OFF VOLTAGE – VDC	1	1
MAX. TURN-ON TIME - mS	8.3	0.02
MAX. TURN-OFF TIME - mS	8.3	
MAX. REVERSE VOLTAGE – VDC	-32	
MAX. INPUT TO OUTPUT CAPACITANCE - pF	10	
MAX. ELECTRICAL ISOLATION - VRMS (INPUT TO LOAD TERMINALS)	2500	

OUTPUT CHARACTERISTICS

MIN. LINE VOLTAGE – VAC	24
MAX. LINE VOLTAGE – VAC	280
MAX. TRANSIENT OVERVOLTAGE– VAC PEAK	600
MIN. LOAD CURRENT @ 85 °C - A	0.05
MAX. LOAD CURRENT @ 85 °C - A	40
MAX. ON-STATE VOLTAGE DROP @ MAX RATED CURRENT - V	1.65
MAX. OFF-STATE LEAKAGE CURRENT @ 25 °C - mA	5
MAX. SINGLE-CYCLE SURGE CURRENT (16.7 mSEC NON-REPETITIVE @ 85 °C) - A	500
MAX. FUSING I(2)T VALUE (8.3 mSEC) - A(2) SEC	1040
MAX. dV/dt CAPABILITY (T(C)=85 °C) - V/µSEC	200
MIN. OPERATING FREQUENCY - Hz	47
MAX. OPERATING FREQUENCY - Hz	400
MAX. POWER DISSIPATION (T(C)=85 °C) - W	85 W/SIDE
MAX. THERMAL RESISTANCE, JUNCTION-TO-CASE (JC) - °C/W	ONE SECTION ON = 0.5 BOTH SECTIONS ON = 0.25
MAX. ELECTRICAL ISOLATION (ALL TERMINALS TO HEATSINK) = VRMS FOR 1 MIN WITH UNIT MOUNTED PROPERLY - V	2500
MIN. OPERATING TEMPERATURE - °C	-25
MAX. OPERATING TEMPERATURE - °C	125
MIN. STORAGE TEMPERATURE - °C	-40
MAX. STORAGE TEMPERATURE - °C	125
POWER FACTOR RANGE	0.5-1.0